

THE CLAIMS

What is claimed is:

1. An adaptive format for a hard disk of a hard disk drive, the adaptive format comprising a plurality of storage zones and a plurality of reset zones alternately distributed along the radius of a hard disk, each reset zone being separated by a first predetermined number of data tracks and containing a second predetermined number of data tracks, and each storage zone including a number of data tracks that is based on a performance capability of a head associated with the hard disk and overlapping at least one reset zone that is adjacent to the storage zone when the number of data tracks of the storage zone exceeds the first number of data tracks separating consecutive reset zones.
2. The adaptive format according to claim 1, wherein the performance capability of the head is a tracks-per-inch performance capability of the head.
3. The adaptive format according to claim 1, wherein the performance capability of the head is a bit-per-inch performance capability of the head.
4. The adaptive format according to claim 3, wherein the performance capability of the head is further based on a tracks-per-inch performance capability of the head.
5. The adaptive format according to claim 1, wherein a plurality of adjacent storage zones have the same bits-per-inch storage capability.
6. The adaptive format according to claim 1, wherein a plurality of adjacent storage zones have the same tracks-per-inch storage capability.

7. The adaptive format according to claim 6, wherein a plurality of adjacent storage zones further have the same bits-per-inch storage capability.

8. The adaptive format according to claim 1, wherein a number of tracks associated with each respective reset zone is based on predetermined allowed track creep for the hard disk drive.

9. The adaptive format according to claim 8, wherein the number of tracks associated with each respective reset zone is further based on a performance requirement for the hard disk drive.

10. A hard disk drive, comprising:
at least one head; and
a hard disk associated with each head, the hard disk having a plurality of storage zones and a plurality of reset zones alternatingly distributed along the radius of a hard disk, each reset zone being separated by a first predetermined number of data tracks and containing a second predetermined number of data tracks, and each storage zone including a number of data tracks that is based on a performance capability of a head associated with the hard disk and overlapping at least one reset zone that is adjacent to the storage zone when the number of data tracks of the storage zone exceeds the first number of data tracks separating consecutive reset zones.

11. The hard disk drive according to claim 10, wherein the performance capability of at least one head is a tracks-per-inch performance capability of the head.

12. The hard disk according to claim 10, wherein the performance capability of at least one head is a bit-per-inch performance capability of the head.

13. The hard disk drive according to claim 12, wherein the performance capability of at least one head is further based on a tracks-per-inch performance capability of the head.

14. The hard disk drive according to claim 10, wherein a plurality of adjacent storage zones have the same bits-per-inch storage capability.

15. The hard disk drive according to claim 10, wherein a plurality of adjacent storage zones have the same tracks-per-inch storage capability.

16. The hard disk drive according to claim 15, wherein a plurality of adjacent storage zones further have the same bits-per-inch storage capability.

17. The hard disk drive according to claim 10, wherein a number of tracks associated with each respective reset zone is based on predetermined allowed track creep for the hard disk drive.

18. The hard disk drive according to claim 17, wherein the number of tracks associated with each respective reset zone is further based on a performance requirement for the hard disk drive.